

### **ABSTRACT OF THE DISCLOSURE**

An apparatus and method for optically characterizing the reflection and transmission properties of a sample with a beam of light having a small diameter on a surface of the sample over  
5 a broadband of wavelengths, from 190 nm to 1100 nm. Reflective optical components, including off-axis parabolic mirrors with a collimated incident or reflected broadband beam of light, minimize non-chromatic aberration. Angles of incidence and reflection from optical components and the sample are kept  
10 substantially near normal to the optical components and the sample to minimize changes in the polarization of the beam of light. The apparatus and method further disclose an optical light path that can be focused by adjusting the position of an off-axis parabolic mirror and a planar mirror.